

Massachusetts Department of Environmental Protection
Safe Drinking Water Act Assessment Advisory Committee
Annual Report to the Massachusetts Legislature
January – December 2008



Fifteen Years of Supporting Implementation of the Federal Safe Drinking Water Act in Massachusetts

This information is available in alternate format. Contact Donald M. Gomes, MassDEP's ADA Coordinator,
at 617-556-1057, TDD# 1-866-539-7622 or 1-617-574-6868.

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Safe Drinking Water Act Assessment Advisory Committee
One Winter Street, Fifth Floor
Boston, Massachusetts 02108

March 9, 2009

Konstantin Eliadi, Chair
Mass. Water Works Association
Director of Water Operations
Worcester DPW

Elizabeth Ainsley Campbell, Vice Chair
Environmental Agency A
Executive Director
Nashua River Watershed Association

Thomas Newton
Western Mass. Water Works Association
Superintendent, Easthampton Water Dept.

Jon Beekman
Associated Industries of Massachusetts
Director of Municipal Services
SEA Consultants, Inc.

Anthony Marques
New England Water Works Association
Director, Hudson DPW

Henry Papuga
National Association of Water Companies
Manager, Milford Water Company

Neal Merritt
Rural Water Systems
Superintendent, Hanson Water Department

Wayne Southworth
MassDEP Designee
Director, Easton DPW

Leo Potter
Environmental Agency B
Canoe River Aquifer Advisory Committee
Superintendent, Foxborough Water Dept.

Richard Maccagnano
Non-Community Systems
Holliston Board of Health

David Baier
Mass. Municipal Association

To: the Honorable Chairs and Members of the House and Senate Ways and Means Committees & the Joint Committee on the Environment, Natural Resources and Agriculture

On behalf of the Safe Drinking Water Act Assessment Advisory Committee, I am pleased to send you this Annual Report as required by M.G.L. Chapter 21A, section 18A. This legislation established the Assessment in 1993 to support primacy in Massachusetts to implement the federal Safe Drinking Water Act (SDWA).

The Assessment, which is paid by all users of public water, provides \$2 million a year to MassDEP to maintain primacy. As the committee has emphasized in this report, operating a public water system is an increasingly complex job. The Assessment is an important source of funding that allows MassDEP to conduct compliance and technical assistance programs to support public water systems in Massachusetts.

Please contact me if you have any questions regarding the Annual Report to the Legislature for 2008. I can be reached at the City of Worcester, Water Operations Division, at 508-799-1486.

Sincerely,

Konstantin Eliadi, Chair

Massachusetts Department of Environmental Protection
Safe Drinking Water Act Assessment Advisory Committee

Annual Report to the Massachusetts Legislature
January 1 through December 31, 2008

Fifteen Years of Supporting Implementation of the Federal Safe Drinking Water Act in Massachusetts

Background

Since 1993 the Safe Drinking Water Act Assessment has helped the Massachusetts Department of Environmental Protection (MassDEP)'s Drinking Water Program maintain primacy to implement the federal Safe Drinking Water Act (SDWA). The Assessment, paid for by public water systems and their customers, is \$8.50 per million gallons of water used each year. Customers used 249,925 million gallons of water in 2008. Revenue expected from the fiscal year 2010 Assessment is \$2.13 million.

By maintaining primacy, MassDEP is able to offer specialized technical assistance and compliance programs that save public water systems and their customers millions of dollars. Public water systems include not only town systems but restaurants, day care facilities, campgrounds and many other types of businesses that serve water, through a private source, to employees or customers. There are 1,721 public water systems in Massachusetts serving over 6.3 million people.

The Safe Drinking Water Act Advisory Committee is responsible, through MGL Chapter 21A, for recommending the Assessment rate each year to MassDEP's Commissioner; monitoring the Assessment Program; and submitting an Annual Report to the Legislature. The committee is composed of eleven members including seven public water suppliers. Committee meetings are held at least quarterly and are open to the public.

The men and women serving as public water suppliers are trained professionals who are certified by the Commonwealth of Massachusetts. Massachusetts water suppliers are involved in operating and maintaining water treatment plants and distribution systems; managing staff; budgeting; watershed and aquifer protection; and working with the public. Their jobs include being teachers; land managers; security officials; emergency responders; and community leaders. Suppliers are also becoming very involved in energy conservation and other green initiatives. They are responsible for maintaining good water quality and water quantity 24 hours a day.

Highlights of Work at MassDEP Funded by the Assessment

As in other areas, the costs of operating a public water system continue to rise. The SDWA Assessment is an important piece of funding that supports public water systems. A complete list of activities funded fully or partly at MassDEP through Assessment funding is included at the end of this report. Highlights include the following.

- MassDEP's Water Quality Monitoring Waiver Program saved public water systems \$2,846,650 for the 2008-2010 waiver period by reducing the frequency of water quality monitoring. Staff reviewed 1,115 monitoring waiver applications. A total of 2,905 waivers were issued to public water systems with a history of good water quality and effective source water protection: 257 for volatile organic chemicals; 819 for synthetic organic chemicals; 694 for inorganic chemicals; 316 for arsenic; and 819 for perchlorate. Four hundred and thirty (430) systems received at least one waiver.
- Pandemic training was held for public water suppliers in all MassDEP regions. A tabletop exercise was also conducted in northeastern Massachusetts that simulated security and emergency response during a storm event.

- Source water protection staff continued the work to support filtration waivers at several public reservoirs and assisted other systems to obtain or maintain log credit toward SDWA disinfection requirements. These programs save public water systems millions of dollars, reduce the amount of chemicals used, and ensure effective watershed protection.

Conclusion

The message for 2008 is that the committee continues to endorse and support MassDEP's use of Assessment funds. MassDEP's technical, educational, and compliance assistance programs support the increasingly challenging work performed by local public water suppliers. The committee asks that city and town officials and the public support their local public water suppliers as they safeguard drinking water quality and quantity for the future. For additional information about the SDWA Assessment Advisory Committee, please contact Konstantin Eliadi, Committee Chair, at the City of Worcester Water Operations Division at 508-799-1486 or eliadik@ci.worcester.ma.us.

Safe Drinking Water Act Assessment Advisory Committee Members – 2008

The committee would like to thank Larry Stepenuck for his 15 years of service on the committee. His guidance and good humor, at the beginning of the Assessment Program as one of the original members of the committee and up to his retirement in 2008, has been appreciated.

Name, Organization Represented, Affiliation, and Year of Appointment

Konstantin Eliadi, Chair, *Massachusetts Water Works Association*, Director of Water Operations, Worcester DPW, 2005
 Elizabeth Ainsley Campbell, Vice Chair, *Environmental Agency*, Exec. Director, Nashua River Watershed Association, 2002
 Thomas Newton, *Western MA Waterworks Association*, Superintendent, Easthampton Water Dept., 2001
 Jon Beekman, *Associated Industries of Massachusetts*, Director of Municipal Services, SEA Consultants, Inc., 1993
 Anthony Marques, *New England Water Works Association*, Director, Hudson DPW, 1994
 Henry Papuga, *National Association of Water Companies*; Manager, Milford Water Company, 1998
 Wayne Southworth, *MassDEP Designee*, Director, Easton DPW, 1993
 Leo Potter, *Environmental Agency*, Canoe River Aquifer Advisory Committee & Sup't. Foxborough Water Dept., 2005
 Richard Maccagnano, *Non-Community Systems*, Holliston Board of Health, 2007
 Neal Merritt, *Rural Water Systems*, Plymouth County Water Works Association & Hanson Water Department, 2008
 David Baier, *Massachusetts Municipal Association*, 1993

Alternates

Ray Raposa, *Alternate for New England Water Works Association*, Executive Director, NEWWA
 Joseph Slattery, *Alternate for Western Mass. Water Works Association*, Southampton Water Department
 Barry Woods, *Alternate for Rural Water Systems*, Superintendent, Buzzards Bay Water District
 Jennifer Pederson, *Alternate for Mass. Water Works Association*, Executive Director, MWWA

Massachusetts Department of Environmental Protection
ACCOMPLISHMENTS DIRECTLY SUPPORTED BY THE SAFE DRINKING WATER ACT ASSESSMENT
January 1 through December 31, 2008

- *Saved public water systems millions of dollars by maintaining Safe Drinking Water Act (SDWA) Primacy.*
- *MassDEP reviewed 1,115 waiver applications and issued 257 volatile organic compound waivers, 819 synthetic organic compound waivers, 694 inorganic compound waivers, 316 arsenic waivers, and 819 perchlorate waivers for the current waiver period (2008-2010). The waiver program is saving systems \$2.85 million over this period.*
- *Provided assistance with over 500 water protection issues at reservoirs and river sources.*
- *Approved watershed protection plans for 3 towns and approved updated plans for all active MWRA reservoirs.*
- Approved municipal wellhead protection controls for 8 groundwater sources in 4 communities.
- Assisted 134 public water systems with wellhead protection issues.
- Conducted Drinking Water Supply Protection Grant Program – awarded \$2 million to purchase land and conservation restrictions totaling 484 acres in water supply protection areas in 7 communities.
- Field verified 69 watershed delineations for reservoirs and updated GIS maps to reflect changes.
- Distributed manuals, fact sheets and newsletters as requested.
- Continued to update web pages to improve access by public water systems, public officials, community groups & residents.
- Continued improving the bulk upload tool that enables laboratories to submit drinking water quality results to MassDEP on-line. Conducted training in CERO on monitoring and reporting for public water suppliers.
- Continued to conduct compliance assistance activities for Statistical Reporting, Ground Water Under the Influence, Consumer Confidence Reporting, Cross Connection, and Certified Operator requirements.
- Worked with local, state and federal officials on security issues and training including developing a Chemical Safety Control Strategy for Chapter 6 of the Guidelines & Policies for Public Water Systems.
- Maintained electronic publishing and access for the quarterly *In the Main* newsletter.
- Published 3 issues of *In the Main* covering source water protection; eDEP; vacuum filtration; Water Management Act; Awards Program; emergency preparedness; Consumer Confidence Reports; USTs; chemical safety; operator exams; contract operators; certified laboratories; geothermal well guidelines; Ground Water Rule; regulatory updates.
- Maintained a free on-line template for systems to use in complying with Consumer Confidence Reporting (CCR).
- Notified new community water systems of CCR requirements for 2008.
- Mailed out CCR reminder postcards and provided CCRs for all (948) Transient Non-Community Systems.
- Reviewed 528 CCRs, provided Technical Assistance Reports and tracked CCR compliance.
- Provided materials for statewide Board of Health workshops as requested.
- Mailed out annual letter to Boards of Health to update members on drinking water issues and MassDEP work.
- Worked with the Office of the State Geologist and United States Geological Survey on topics of mutual interest.
- Participated in the New England Groundwater Resources Initiative Committee.
- Prepared advisories for statewide media outlets activities such as Drinking Water Week and the Drought Management Task Force.
- Issued 32 Drinking Water Compliance Awards during 2008 Drinking Water Week.
- Board of Certification of Operators of Drinking Water Supply Facilities approved 72 new training courses.
- Registered 35 new public water systems that were previously unregulated.
- Provided support for training on water rates to 180 individuals.
- Provided instructors for New England Water Works Association (NEWWA) Bedrock Well Courses.
- Provided instructor for the Cross Connection Control Program (CCCCP) Workshops.
- Performed 9 CCCC audits in NERO, CERO, and SERO. Issued 228 Cross Connection Certificates.
- Planned and implemented three CCCC Annual Workshops attended by 206 individuals.
- Provided instructor for 10 NEWWA CCCC Course (Backflow Test and Cross Connection Survey).
- Provided CCCC technical assistance to 189 individuals/cities/towns.
- Provided outreach & technical assistance to K-12 schools on lead in drinking water. Worked with partners to prepare & distribute guidance on Lead in Drinking Water at Child Care Facilities to over 3,000 facilities. Reviewed over 200 Lead in Drinking Water Maintenance Checklists and over 300 laboratory results from schools. Provided assistance to Multi-Agency Task Force for Schools to develop a facility managers workbook and conducted initial training class. Processed over 300 applications for registration and/or closure of Class V wells.
- MassDEP received a grant from EPA to begin developing electronic filing of UIC registrations and closure forms and electronic reporting of UIC data to EPA.
- Conducted leak detection and unaccounted for water seminar for over 50 individuals from 30 communities.
- Provided instructors for NEWWA Innovative Source Development course.
- The fall Training Program covered guideline changes; Water Management Program updates; DWP topics; and proposed regulations. A total of 256 water suppliers, consultants & others were eligible to receive five TCHs.

Massachusetts Department of Environmental Protection
ACCOMPLISHMENTS PARTLY/INDIRECTLY SUPPORTED BY THE SAFE DRINKING WATER ACT ASSESSMENT
January 1 through December 31, 2008

- Continued to offer free training programs for small system operators through EPA Grant.
- Continued the implementation of the Capacity Development Program, which concentrates on providing financial, managerial and technical assistance to small water suppliers.
- MassDEP staff reviewed the technical, financial, and managerial operations of 239 community & non-transient non-community and 107 transient non-community public water systems. Through a contract, the Mass. Coalition for Small System Assistance provided 4 group training sessions; 108 site visits; and 15 mentoring sessions.
- Conducted annual inspections at 6 public surface water systems that have waivers from filtration.
- *Assisted surface water suppliers with developing protection plans and bylaws and obtaining log credit.*
- Participated on the State Vegetation Management Panel; State Pesticide Board; NEWWA Source Water Advisory Group, Groundwater Advisory Committee & Groundwater Resource Initiative; Multi-Agency Task Force on Schools; National Drinking Water Advisory Council Small Systems Implementation Work Group; MassDEP Laboratories Advisory Committee; Mass. Water Works Association (MWWA) Technical Advisory Committee; New England Interstate Water Pollution Control Commission Source Water Protection Work Group.
- Participated on EPA work groups for Emergency Preparedness, Surface Water Treatment Rule, Disinfection Byproducts Rule, Long Term 2 ESWTR, Data Sharing, Ground Water Rule, Public Notification, Unregulated Contaminant Monitoring. Participation on these committees places MA interests at the national level.
- Participated in establishing guidelines and uniformity in cross connection programs throughout New England as a member of the NEWWA Board of Certification of Backflow Prevention and Cross Connection Control.
- Staff serves on the NEWWA Drinking Water Operators Certification Committee which provides a forum for discussion of operator certification issues for all of the New England states.
- The annual operator certification report was submitted to EPA and received EPA approval.
- Coordinated with the Massachusetts Plumbing Board regarding cross connection responsibilities of public water systems, requirements of the UIC Program and issues related to geothermal wells.
- Conducted 208 UIC inspections and issued 178 notices of noncompliance (NON). Returned 212 unauthorized Class V wells to compliance and assisted 98 locations into voluntary compliance.
- Provided technical assistance about the UIC Program to MassDEP staff conducting multi-media inspections.
- Prepared and issued draft guidelines for the design, installation, operation and closure of open and closed loop geothermal wells in coordination with MassDEP programs, MassDEP stakeholders group and other state agencies.
- Participated in workshops on geothermal heat pumps, groundwater protection, and the UIC Program.
- The Drinking Water Program issued 660 Notices of Noncompliance, 32 Unilateral Orders, 41 non-penalty Administrative Consent Orders, 14 Administrative Consent Orders with penalties, and 1 Penalty Assessment.
- Issued 7 Water Management Act Permits and 2 Permit Amendments and completed 39 Five-year Reviews.
- Participated in the Office of the State Geologist State Mapping Advisory Committee.
- Provided comments on MassDEP Bureau of Waste Site Cleanup, Title 5, Stormwater Policy and Groundwater Discharge Program regulations & policy development for consistency with the Drinking Water Program.
- Reviewed EPA Region I NPDES proposal for limiting discharges from water treatment plants & well drilling.
- Continue to conduct water resources investigations of communities dependent on bedrock wells in I-495 belt.
- Developed a ground water model to begin evaluating the safe yield of the Plymouth-Carver Aquifer.
- Reviewed & commented on Mass. Highway Dept. Road Salt Environmental Status & Planning Report Work Plan.
- Provided technical assistance to local Boards of Health in revising private well regulations.
- Provided technical assistance to water suppliers and local officials on geothermal, water purification backwash and stormwater UICs.
- Provided technical support to the Wastewater Management Program on ground source heat pump permitting.
- Extensive revisions to Chapter 4 (Groundwater Supply Development & the Source Approval Process); Chapter 5 (Water Treatment) and Chapter 12 (Emergency Response Planning) of the 2001 Guidelines – now on web page.
- Issued policy on discharges from pws pumping facilities -- implementing BMPs and registering as Class 5 wells.
- Conducted regular meetings with MWRA including scheduling compliance reviews of monthly reports.
- Fluoridation coordination with the Mass. DPH Office of Oral Health.
- Obtained interim primacy for the Long Term 2 ESWTR & initiated rule implementation activities for 90 pws.
- Presentation on new guidelines for ground source heat pumps at Mass. Health Officers Association conference.
- Presentation at NEWWA conference on development of municipal bedrock wells in Rockport.
- Provided speakers on water supply topics to local/regional events and for operator training courses through NEWWA.
- Performed three Comprehensive Performance Evaluations of drinking water facilities to enhance their performance.
- Drafted regulatory changes for the Lead and Copper and Ground Water Rules.
- Prepared policies and forms to allow public water suppliers to switch from potassium hydroxide to sodium hydroxide to save money on chemical costs.

Cover Photographs (clockwise from top left)

Joseph Richard, Town of Easton, Maintenance at an Ultra Violet Disinfection System



Photograph by John Fresh, Town of Easton Water Division

Steve Souza, Buzzards Bay Water District, Water Quality Sampling at Test Wells



Photograph by Barry Woods, Superintendent

John Sasur, Three Rivers Fire District, Palmer, Testing Backflow Preventer



Photograph by Dan Laprade, MassDEP

Maureen McClelland, U.S. EPA, Western Massachusetts Water Works Association Training Session



Photograph by Dan Laprade, MassDEP

Massachusetts Water Resources Authority (MWRA) Boom Deployment Training at Wachusett Reservoir



Photograph by John Gregoire, MWRA

Richard Clark, Halifax Water Department, Receiving 2008 Drinking Water Award at State House; also Richard Kilhart, Western Massachusetts Water Works Association; MassDEP Commissioner Laurie Burt; Betty DeBenedictis, Legislative Aide
Photograph by Charles Larson, New England Water Works Association